

**REMARKS**

Claims 35 to 38 are added, and therefore claims 16 to 38 are pending in the present application.

In view of the following, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

With respect to paragraph eleven (11) of the Office Action, the drawings were objected to for assertedly failing to show the controller's first and second area of operation.

In the Response to Arguments section of the Office Action, the Examiner acknowledges that Figure 3 shows a plot of the correlation between voltage and torque, and that Figure 4 shows voltage variation over time. Further, it is plainly apparent from the specification that Figure 3, item 30 corresponds to the first area of operation, and items 31 and 32 correspond to the second area of operation. Nevertheless, the Examiner objects to the alleged failure to disclose the use of sensors and instructions corresponding to the claimed method steps, asserting that this lack of disclosure is not enabling. Enablement rejections should be directed towards the claims under 35 U.S.C. § 112, rather than the drawings. Since the claims have been rejected as assertedly lacking enablement, it is unclear why the Examiner is also objecting to the drawings when the underlying rationale for the drawing objection is not based on a failure of the drawings to show specific claim elements, but rather based on issues that relate to enablement of the claims.

With respect to paragraph twelve (12) of the Office Action, the drawings were objected to as incomplete for assertedly failing to show the structural differences between the claimed invention and the prior art.

Figures 1 and 2 clearly show the structural connections of an example electrical device according to the present invention, including connections for transmitting various signals involved in the operation of the electrical device. Regarding the asserted failure to disclose structural differences, it is respectfully submitted that such a showing is not required. Under 37 C.F.R. § 1.81(a), an applicant is only "required to furnish a drawing of [the] invention where necessary for the understanding of the subject matter sought to be patented." It is respectfully submitted that the features of all of the claims are fully described by the specification and/or would be understood by a person having ordinary skill in the art from the

description of the specification and the previously submitted drawings, so that additional drawings of these aspects are not necessary. In particular, one of ordinary skill in the art would be fully capable of modifying the structural arrangements of conventional electrical devices in order to implement the present invention.

Accordingly, the drawings, as presented, illustrate the claimed subject matter.

In view of the foregoing, withdrawal of the objections to the drawings is therefore respectfully requested.

With respect to paragraph fourteen (14) of the Office Action, claims 16 to 34 were rejected under 35 U.S.C § 112, first paragraph, as lacking enablement. More specifically, the Examiner asserts that the claims are not sufficiently supported to enable one of ordinary skill in the art to practice the invention without undue experimentation.

A *prima facie* showing of lack of enablement requires a high threshold of proof. Under M.P.E.P. § 2164.01, it is recognized that even “complex” experimentation does not necessarily amount to undue experimentation and that “[a] patent need not teach, and *preferably omits*, what is well known in the art” (emphasis added). In addition, M.P.E.P. § 2164.01(a) sets forth a list of factors that must be considered in determining whether the enablement requirement is satisfied. These factors include, but are not limited to: (a) the breadth of the claims; (b) the nature of the invention; (c) the state of the prior art; (d) the level of one of ordinary skill; (e) the level of predictability in the art; (f) the amount of direction provided by the inventor; (f) the existence of working examples; and (h) the quantity of experimentation needed to make or use the invention based on the content of the disclosure. M.P.E.P. § 2164.01(a) also makes clear that “[i]t is improper to conclude that a disclosure is not enabling based on an analysis of only one of the above factors while ignoring one or more of the others. The examiner's analysis must consider all the evidence related to each of these factors, and any conclusion of nonenablement must be based on the evidence as a whole” (emphasis added). For the reasons explained below, the Office Action does not meet the standard set forth in M.P.E.P. § 2164.

The Office Action, while pointing out a list of omitted features from the specification, does not provide an indication why the omissions are critical or essential to the practice of the invention without undue experimentation. In this regard, the Office Action has conclusorily asserted that these features are essential without providing any explanation that would indicate *consideration of each of the factors* enumerated in M.P.E.P. § 2164.01.

The Office Action specifically asserts that it is necessary to disclose: a circuit arrangement for the controller; specific steps the controller takes to provide the areas of operation, regulate braking torque and transition between the areas of operation; which torque influencing variable is used to achieve a change in torque; and the exact functional relationship between a torque influencing variable and control of torque. As pointed out above, the Office must provide a showing that each of the factors in M.P.E.P. § 2164.01 has been considered before concluding that disclosure of these features is essential to enablement.

Applicants also respectfully submit that these features need not be disclosed in view of the fact that the design of controllers for performing specific tasks was well within the reach of one skilled in the art at the time of the present invention. For example, in the context of torque and voltage control, European Patent Application No. 1111753 (which was cited in Applicants' PTO-1499 form and initialed by the Examiner on January 4, 2009) refers to a voltage controller including a control circuit having operational amplifiers or a microcomputer with programs, and a feedback control system that provides output according to a difference between a control voltage and a battery voltage. U.S. Patent Publication No. 2003/107351 (also cited in Applicants' PTO-1499 form) refers to an inertia torque reducing control circuit including a switch to control the supply of an exciting current and a speed determining circuit to determine whether a speed of the internal combustion engine is lower than a speed reference value. As the Examiner is undoubtedly aware, these references are illustrative examples of specific controller implementations known at the time of the present invention. These examples make clear that the details of using a controller to effect torque and voltage control were available at the time.

Additionally, as to the omission of exact values associated with torque control and the values corresponding to each of the claimed areas of operation, it should be noted that the claimed invention is not limited to any specific vehicle configuration. Instead, the invention is applicable to any number of configurations. Since the meaning of what is an acceptable voltage or torque value/fluctuation can vary from one configuration to another, the same values may not be equally applicable across different vehicle configurations. A simple example of this principle is normal load voltage. It is plainly apparent that the normal load voltage can be a function of the total number and the total power consumption of all the devices expected to be active during normal usage conditions, which can vary depending on vehicle make or model. Therefore, it would be inappropriate to specify exact values for the torque control and the areas of operation.

For the reasons stated above, the present invention, as embodied in the claims, provides a flexible framework for controlling a generator in a motor vehicle system. The claims should not be limited in scope to any one particular vehicle configuration, but should instead allow for the freedom to apply the techniques of the present invention to different situations. Further, it is respectfully submitted that one of ordinary skill in the art would be capable of adapting the present invention to those different situations without undue experimentation—as the references cited above clearly illustrate.

Accordingly, the rejection under 35 U.S.C § 112, first paragraph should be withdrawn.

With respect to paragraph sixteen (16) of the Office Action, claims 16, 18 to 24 and 26 to 29 were rejected under 35 U.S.C § 112, second paragraph, as indefinite. In particular, the Office Action asserts that the terms “area of operation,” “a function of,” “torque-influencing variable,” and “according to a functional relationship” are indefinite.

However, claims recite the invention. Their purpose is not to explain how the invention works. *Thus, the claims need not at all recite how a claimed method works. That role is left to the specification.* W.L. Gore & Assoc., Inc. v. Garlock, Inc., 721 F.2d 1540, 1558 (Fed. Cir. 1983). Moreover, to the extent the rejection is based on the Examiner’s belief that the claims are overbroad because they may read on multiple ways of influencing torque or voltage, it is noted that the breadth of a claim is an inappropriate basis for a rejection of the claim. As § 2173.04 of the M.P.E.P., entitled “Breadth Is Not Indefiniteness,” states: “Breadth of a claim is not to be equated with indefiniteness.” See also In re Miller, 169 USPQ 597 (CCPA 1971). Regardless of breadth, if the scope of the subject matter embraced by the claims is clear, and “[i]f applicants have not otherwise indicated that they intend the invention to be of a scope different from that defined in the claims, then the claims comply with 35 U.S.C. 112, second paragraph.” M.P.E.P. § 2173.04. A claim therefore can both be broad and, at the same time, clearly demarcate to those of ordinary skill in the art the boundaries of the invention.

In order to establish that these claims are too broad, that is, that the scope of invention to which Applicants are striving to attain, e.g., without more particularly reciting how the torque is influenced, is more than what Applicants are entitled to under the Patent Act, *specific evidence in the form of references or other publications must be brought forth by the Patent Office.* Therefore, the issue of breadth is one that pertains not to the understandability

of the claims, since claims that are broad are not inherently indefinite, but to the outer limits of what Applicants are entitled to exclude others from making, using, or selling, limits which are bounded by what is in the public domain and also by what others have already staked out for themselves as their own property. In other words, the proper rubrics for examining the issue of breadth are those of anticipation and obviousness under §§ 102 and 103. Thus, even if the claims are broad in scope, the claims are, nevertheless, clear, give no rise to ambiguity, and are therefore definite.

Accordingly, it is believed and respectfully submitted that claims 16, 18 to 24 and 26 to 29 are definite in view of the specification, since it would be understood by a person having ordinary skill in the art -- especially in view of the specification.

With respect to paragraph twenty (20), claims 16 to 24 were rejected under 35 U.S.C § 112, second paragraph, for omitting essential elements.

“A claim which omits matter *disclosed to be essential* to the invention as described in the specification or in other statements of record may be rejected” M.P.E.P. § 2172.01 (emphasis added). As further explained in M.P.E.P. § 2164.08(c), “A feature which is *taught as critical in a specification* and is not recited in the claims should result in a rejection of such claim under the enablement provision section of 35 U.S.C. 112” (emphasis added). Thus, the M.P.E.P. clearly states that a rejection for omitted essential elements is only applicable to those instances in which the specification or another statement of record indicates that an element is essential. However, this rejection should not be used as a vehicle for the Examiner’s independent conclusions that an element is essential. In the present case, the specification does not indicate that any of the omitted elements noted in the Office Action are essential. Accordingly, claims 16 to 24 are definite and do not omit any essential elements.

With respect to paragraph twenty-five (25) of the Office Action, claims 16 to 34 were rejected under 35 U.S.C § 103(a) as unpatentable over U.S. Patent No. 4,017,739 (“Hapeman”).

To reject a claim under 35 U.S.C. § 103(a), the Office bears the initial burden of presenting a *prima facie* case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish *prima facie* obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine

reference teachings. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

Also, as clearly indicated by the Supreme Court in *KSR*, it is “important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements” in the manner claimed. See KSR Int’l Co. v. Teleflex, Inc., 127 S. Ct. 1727 (2007). In this regard, the Supreme Court further noted that “rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” Id., at 1396. Second, there must be a reasonable expectation of success. In re Merck & Co., Inc., 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim features. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

As an initial matter, the statements in the Office Action in support of the obviousness rejections are completely devoid of any explanation why one of ordinary skill in the art would modify Hapeman to arrive at the present invention, as defined in the claims. The Office Action conclusorily asserts obviousness without citing to any additional reference or publication, or providing Official Notice. Further, the statements in support of the obviousness rejections fail to provide any rationale for modifying Hapeman. For example, none of the exemplary rationales identified by the Supreme Court in *KSR* have been offered to explain the Examiner’s conclusions of obviousness (See M.P.E.P. § 2143).

The Office Action asserts that it would be obvious to combine Hapeman with conventional setpoint control techniques and any well known torque influencing variable in order to arrive at the controller as provided in claim 16. As pointed out above, the Office Action has not provided any rationale for modifying Hapeman, thereby failing to establish that it would be obviousness to modify Hapeman in the manner asserted.

In addition, it is respectfully submitted that even if Hapeman were combined with conventional control techniques and known torque influencing variables, the resulting combination would still fail to identically disclose or suggest each of the features recited in claims 16 and 25. For instance, the Office Action does not point to any portion of the conventional control techniques and the torque influencing variables which would disclose or suggest a first area of operation and at least one second area of operation, as provided in the

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context of claims 16 and 25. In this regard, Applicants' previous statements regarding conventional control techniques and known torque influencing variables do not provide any basis to support the Office Action's assertions and it is unclear how these features have been derived. Since the Office Action clearly fails to adequately demonstrate that the deficiencies of Hapeman were curable by what was known in the art, the asserted modifications to Hapeman do not render claims 16 and 25 obvious.

As further regards all of the obviousness rejections, any Official Notice is respectfully traversed to the extent that it is maintained and it is requested that the Examiner provide specific evidence to establish those assertions and/or contentions that may be supported by the Official Notices under 37 C.F.R. § 1.104(d)(2) or otherwise. In particular, it is respectfully requested that the Examiner provide an affidavit and/or that the Examiner provide published information concerning these assertions. This is because the § 103 rejections are apparently being based on assertions that draw on facts within the personal knowledge of the Examiner, since no support was provided for these otherwise conclusory and unsupported assertions. (See also MPEP § 2144.03).

Accordingly, claims 16 and 25, as presented, are allowable, as are dependent claims 17 to 24 and 26 to 30.

Withdrawal of the obviousness rejections is therefore respectfully requested.

In sum, claims 16 to 34 are allowable.

New claims 35 to 38 do not add any new subject matter and are supported by the present application. Claims 35 & 36 and claims 37 & 38 respectively depend from claims 25 and 16, and they are therefore allowable for the same reasons.

Accordingly, claims 16 to 38 are allowable.

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**CONCLUSION**

In view of the foregoing, it is respectfully submitted that all of presently pending claims 16 to 38 are allowable. It is therefore respectfully requested that the objections and rejections be withdrawn. Since all issues raised by the Examiner have been addressed, an early and favorable action on the merits is respectfully requested.

Dated: \_\_\_\_\_

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Respectfully submitted,

By: \_\_\_\_\_

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